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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/730,385	12/08/2003	Stanley Merjan		2600

7590 08/30/2004

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EXAMINER

LEE, JONG SUK

ART UNIT	PAPER NUMBER
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3673

DATE MAILED: 08/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/730,385

Applicant(s)

MERJAN ET AL.

Examiner

Jong-Suk (James) Lee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>3/16/04 & 4/16/04</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

1. Claims 4, 5, 8 and 10 drawn to a driven pile, process and structure, respectively, have been treated as an independent claim written in shorthand form.

Specification

2. The disclosure is objected to because of the following informalities:

The sub-headings for various sections of the specification are omitted. It is suggested that headings be inserted in the specification in order to present the disclosure properly.

Refer to followings:

The following guidelines illustrate the preferred layout and content for patent applications. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

The following order or arrangement is preferred in framing the specification and, except for the title of the invention, each of the lettered items should be preceded by the headings indicated below.

- (a) Title of the Invention.
- (b) Cross-References to Related Applications (if any).
- (c) Statement as to rights to inventions made under Federally-sponsored research and development (if any).
- (d) Background of the invention.
 1. Field of the Invention.
 2. Description of the Related Art including information disclosed under 37 CFR 1.97-1.99.
- (e) Summary of the Invention.
- (f) Brief Description of the Drawing.
- (g) Description of the Preferred Embodiment(s).
- (h) Claim(s).

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- (i) Abstract of the Disclosure.

Appropriate correction is required.

Claim Objections

3. Claims 5 and 10 are objected to because of the following informalities:

Claim 5, line 1: "Process" should be -- A process --.

Claim 10, line 1: "Process" should be -- A process --.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103[©] and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1, 2, 4 and 6-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over DeWitt (US 4,127,002) in view of Fuentes, Jr. (US 3,522,707).

DeWitt discloses a concrete piling and method for forming the concrete piling foundation comprising of: a bottom portion of a hollow steel body having a cross-section

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of a convex polygonal shape with at least four sides, which being made of a sheet folded to the polygonal shape and the free edges of the body being welded together, the sides of the polygonal shape being equal (see Fig. 19), the hollow body being filled with concrete, the top of the hollow body carrying a first connector (26) constructed to firmly couple the bottom portion of a pre-cast concrete pile section resting on the bottom portion in axial alignment with the bottom portion, the first connector having anchoring rods (22) secured thereto and extending downwardly into and bonded to the concrete filling, the body being driven into the ground (see Fig. 1) by hammer blows transmitted to the top of the body and continuing the driving of the resulting composite pile into the ground (see Figs. 1-8), the steel body is filled with wet concrete after being driven into the ground (see Fig. 8).

However, DaWitt fails to disclose or fairly suggest the steel body being uniformly tapered. Fuentes, Jr. discloses a piling construction having a steel body being tapered at the lower portion of the pile (see Fig. 4; col.4, lines 51-69).

Therefore, in view of Fuentes, Jr., it would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the lower portion of the piling/body to be uniformly tapered in order to enhance the pile driving efficiency into the consolidated soils.

Although DaWitt modified by Fuentes, Jr. fails to disclose the pre-stressed and pre-cast concrete pile section, the cast-in-place upper concrete piling section would have been modified to be introduced as the pre-stressed and pre-cast concrete piling within ordinary skill in the art insofar as the cast-in-place concrete pile is hardened to provide the support to the structure built on.

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With respect to the structure where the piles support and the soil condition such as over-consolidated cohesive soils, the piling with tapered steel body filled with concrete would have been driven into such an over-consolidated cohesive soil condition for supporting the structure within an ordinary skill in the art.

Obviousness-Type Double Patenting

6. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321[©] may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

7. Claims 1-5 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-4 of U.S. Patent No. 6,468,003 and claims 1-4 of U.S. Patent No. 6,309,143.

Although the conflicting claims are not identical, they are not patentably distinct from each other because the present claimed invention is somewhat broader recitation of

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the '003 and '143 patents, for example, in claim 1 of present claimed invention and claim 1-4 of '003 Patent, the Applicants claim:

"A pile comprising a hollow uniformly tapered steel body....a convex polygon having 8 to 24 sides,....the body being about 3 to 13 meters long, having a lower diameter which is about 200 mm to 400 mm and a larger upper diameter which about 300 mm to 600 mm and being of steel about 5 to 13 mm thick formed from a unitary sheet folded into said tapered polygon shape.....a circular cross-section such that said top can engage with, match and be butt-welded to the end of a straight pipe of corresponding circular cross-section."

Whereas in '003 Patent, the Applicants claim "In a pile having a hollow uniformly tapered steel body....a convex polygon having at least four sides," (see col.5, lines 30-40); "said convex polygon having 8 to 24 sides.." (see col.5, lines 47-48); "said tapered portion is of steel and is about 3 to 13 meters long and has a lower diameter which is about 200 mm to 400 mm and a larger upper diameter which about 300 mm to 600 mm and being of steel about 5 to 13 mm..." (see col.5, lines 52-61).

And whereas in '143 Patent, the Applicants claim "In a pile having a hollow uniformly tapered steel body....a convex polygon having at least four sides,....the very top end of said hollow tapered portion being formed to a circular cross section of substantially the same diameter as, the matching with, the cross-section of said hollow straight portion being butt-welded to said top of the hollow tapered portion...." (see col.5, lines 36-58).

Therefore, in respect to above discussions, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the teachings of claims

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1-4 of '003 and '143 Patent as a general teachings for a composite piling as claimed by the present application. The instant claims obviously encompass the claimed invention of '003 and '143 Patent and differ only in terminology. To the extent that the instant claims are broaden and therefore generic to the claimed invention of '003 and '143 Patent [species], In re Goodman 29 USPQ 2d 2010 CAFC 1993, states that a generic claim cannot be issued without a terminal disclaimer, if a species claim has been previously been claimed in a co-pending application.

Allowable Subject Matter

8. Claims 3 and 5 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims and **upon timely filing Terminal Disclaimer.**

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Other references cited disclose a concrete pile joint and method of assembly, piles and method of making the piles and a water proof concrete pile.

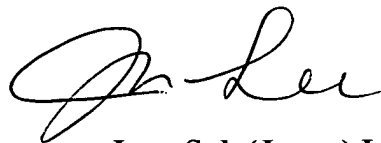
10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jong-Suk (James) Lee whose telephone number is (703) 308-6777. The examiner can normally be reached on 6:30 am to 3:00 pm, Monday thru Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather C. Shackelford, can be reached on (703) 308-2978. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

J. Lee /jjl
August 25, 2004



Jong-Suk (James) Lee
Primary Examiner
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**Attachment: Revised Amendment Practice: 37 CFR 1.121 changed as of
July 30, 2003.**